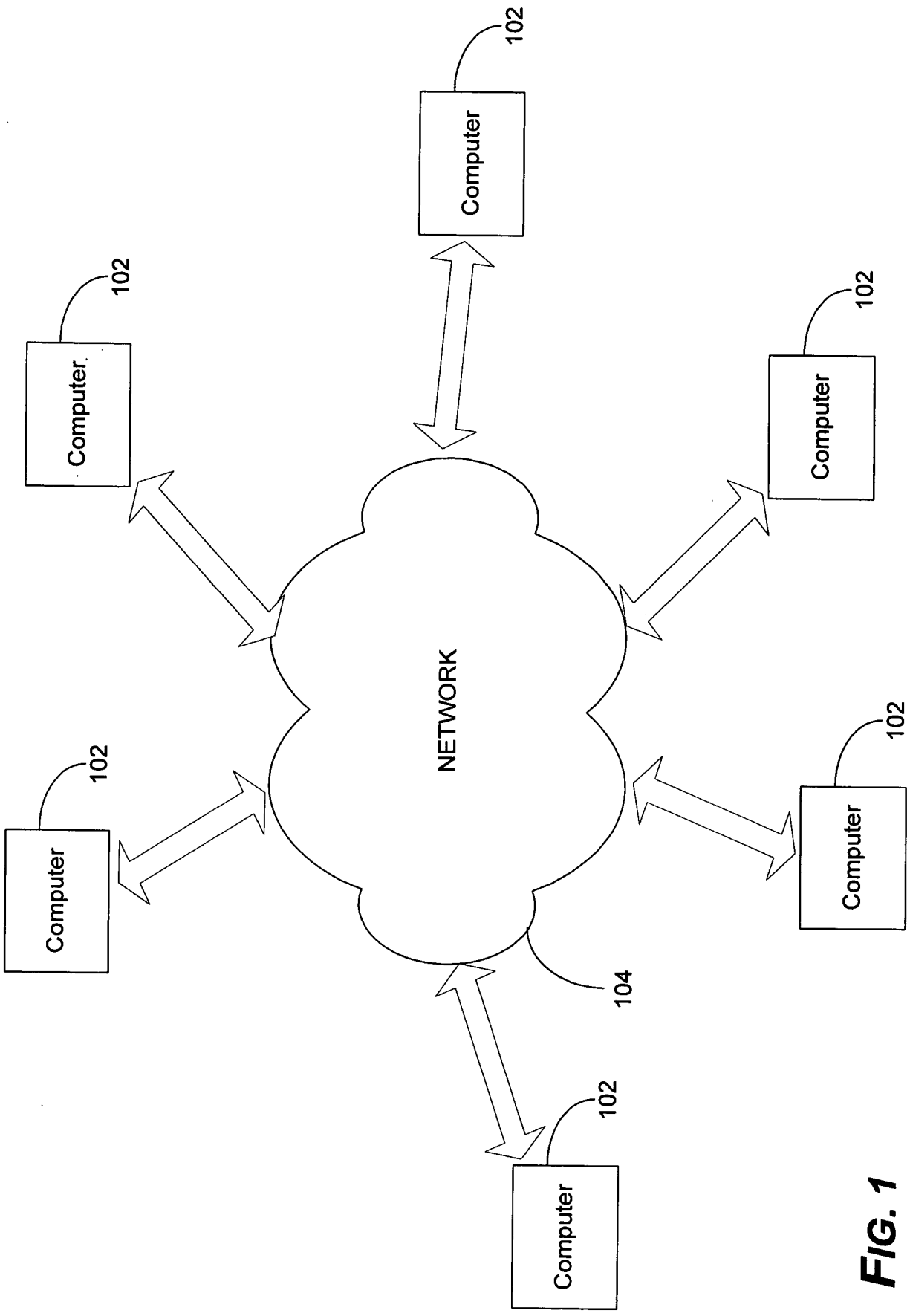
Computer
102
Computer
102
Computer
102
NETWORK
Computer
102
Computer
102
Computer
102
104

FIG. 1

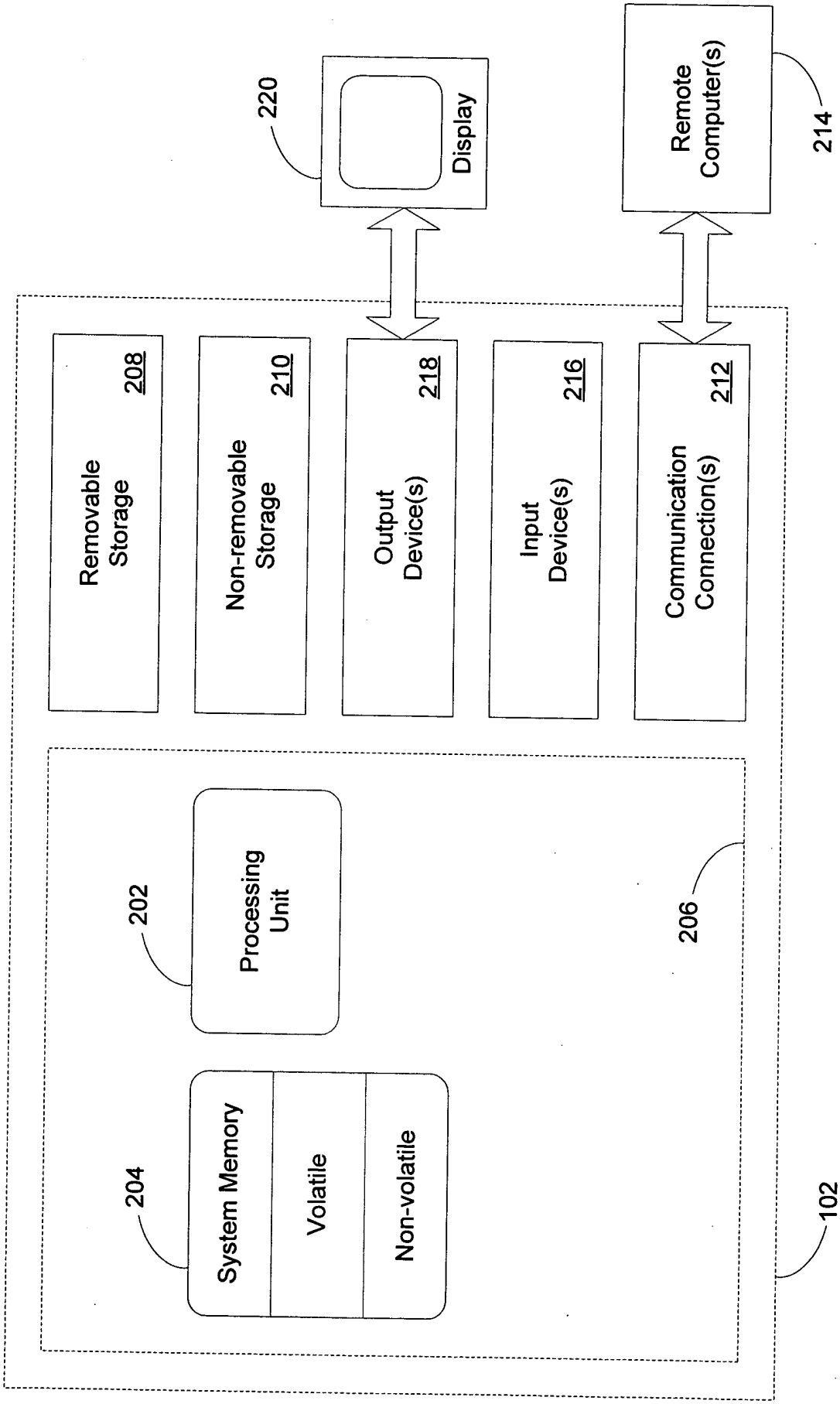
220
Display
Remote Computer(s)
214
Removable Storage 208
Non-removable Storage 210
Output Device(s) 218
Input Device(s) 216
Communication Connection(s) 212
202
Processing Unit
206
204
System Memory
Volatile
Non-volatile
102

FIG. 2

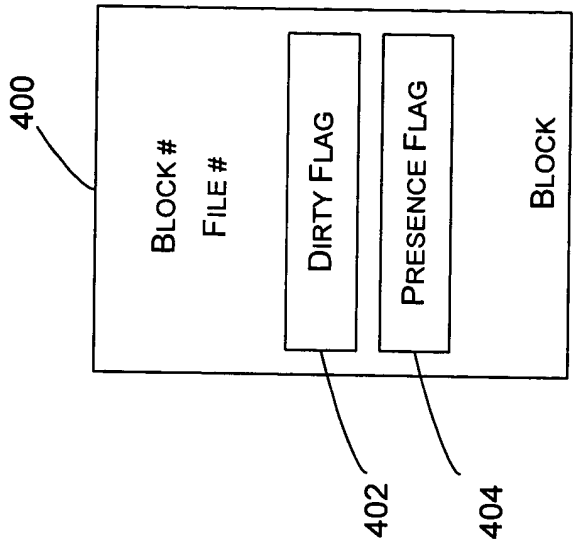
400
BLOCK #
FILE #
DIRTY FLAG
PRESENCE FLAG
BLOCK
402
404

FIG. 4

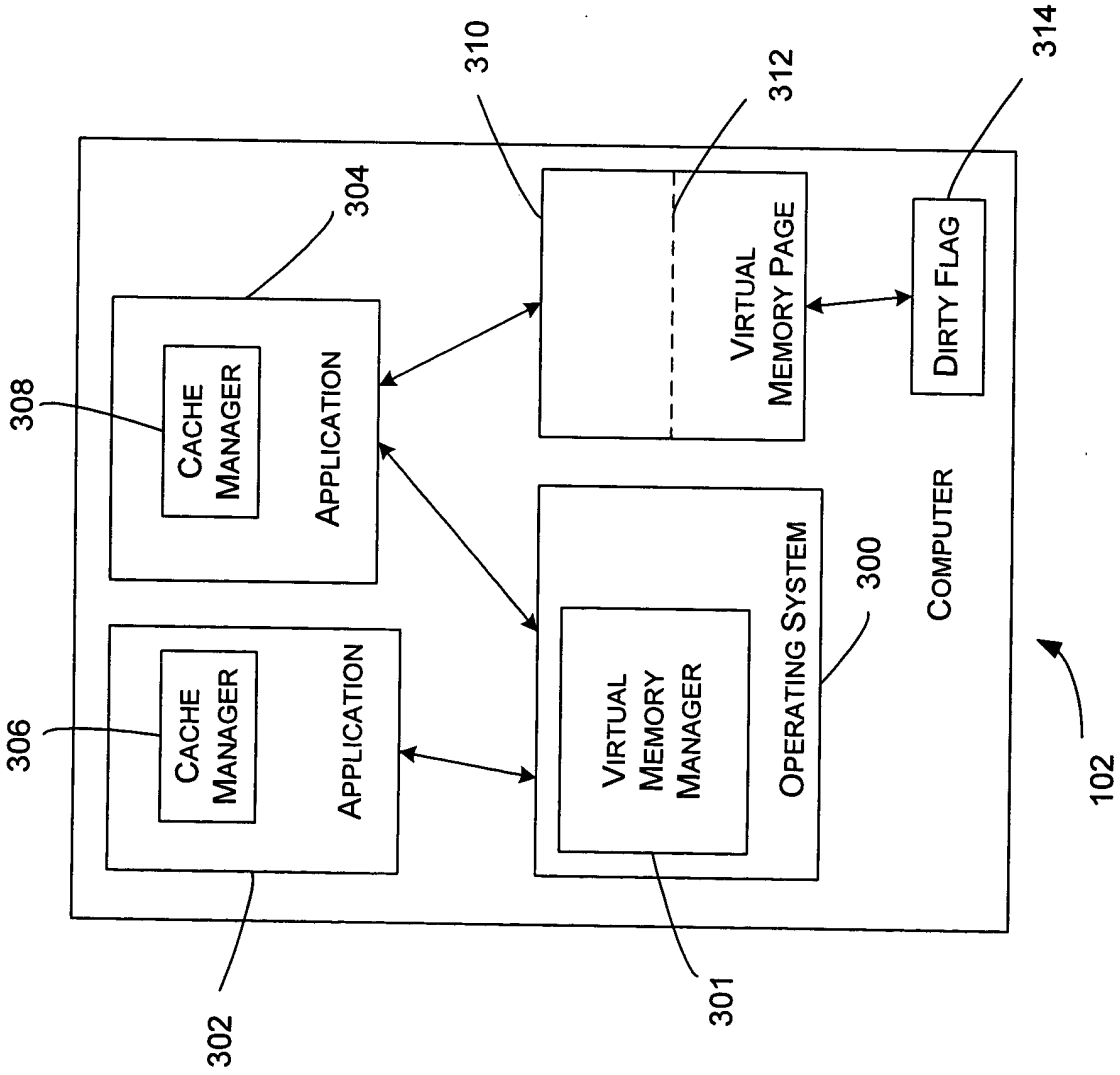
310
312
314
304
308
306
CACHE MANAGER
APPLICATION
CACHE MANAGER
APPLICATION
VIRTUAL MEMORY PAGE
DIRTY FLAG
VIRTUAL MEMORY MANAGER
OPERATING SYSTEM
300
COMPUTER
102
302
301

FIG. 3

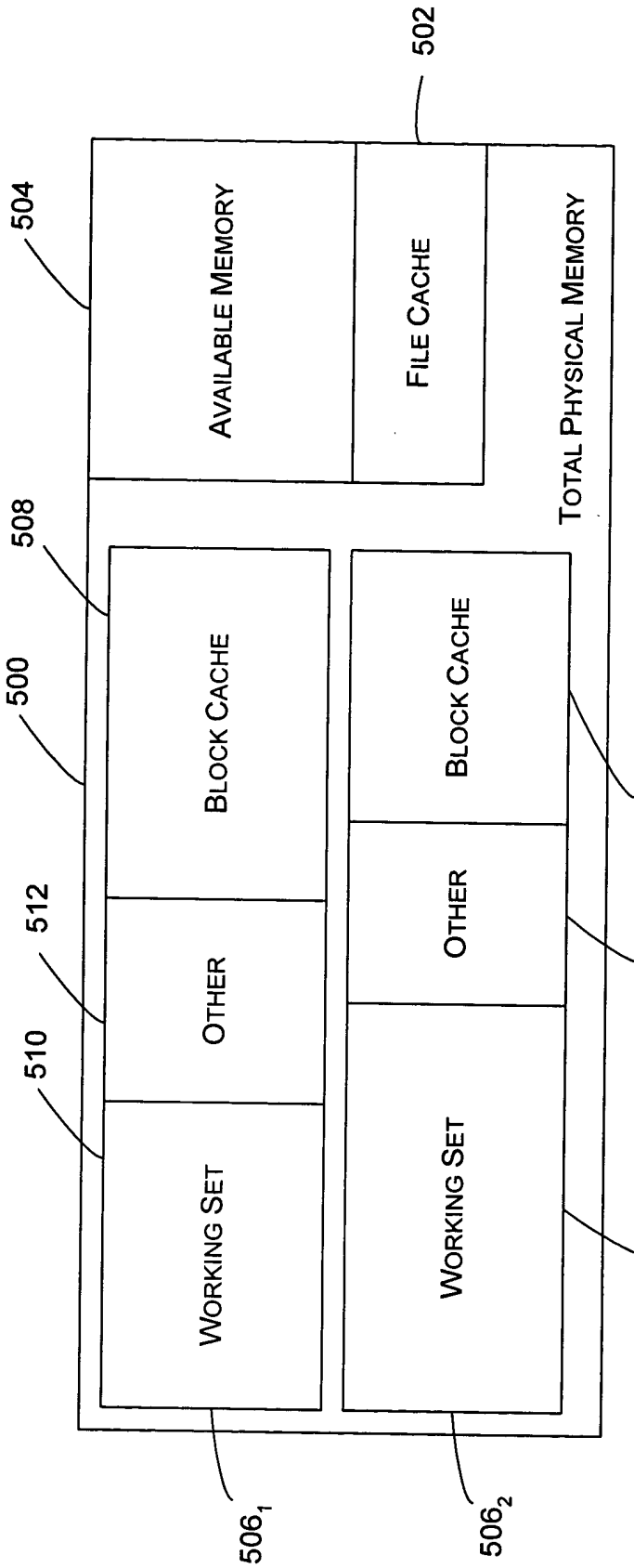
502
504
AVAILABLE MEMORY
FILE CACHE
TOTAL PHYSICAL MEMORY
508
500
BLOCK CACHE
BLOCK CACHE
512
OTHER
OTHER
510
WORKING SET
WORKING SET
508
512
510
506$_1$
506$_2$

FIG. 5

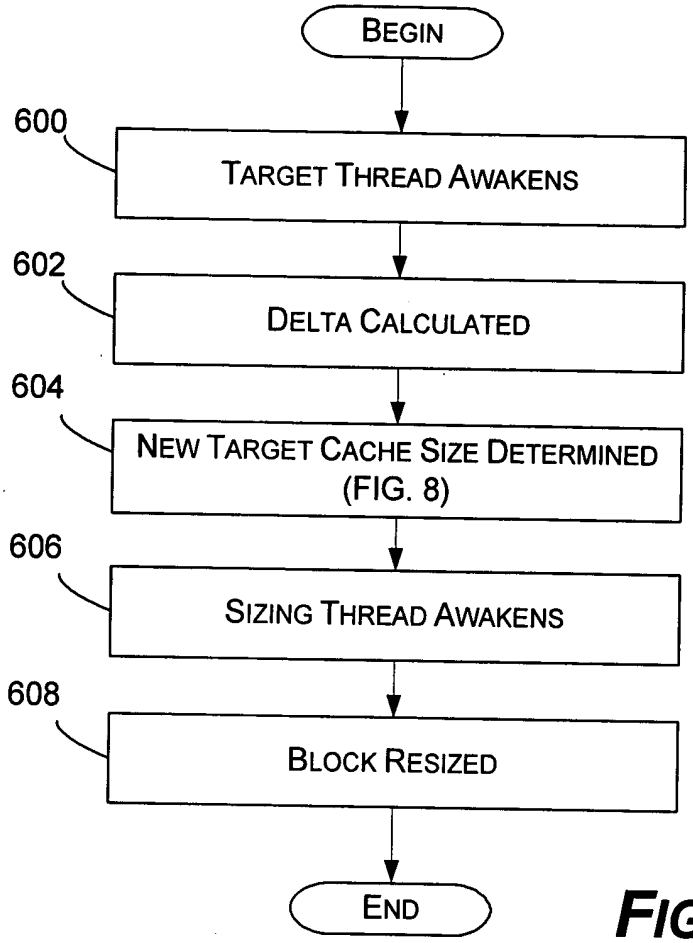
BEGIN
600
TARGET THREAD AWAKENS
602
DELTA CALCULATED
604
NEW TARGET CACHE SIZE DETERMINED (FIG. 8)
606
SIZING THREAD AWAKENS
608
BLOCK RESIZED
END

FIG. 6

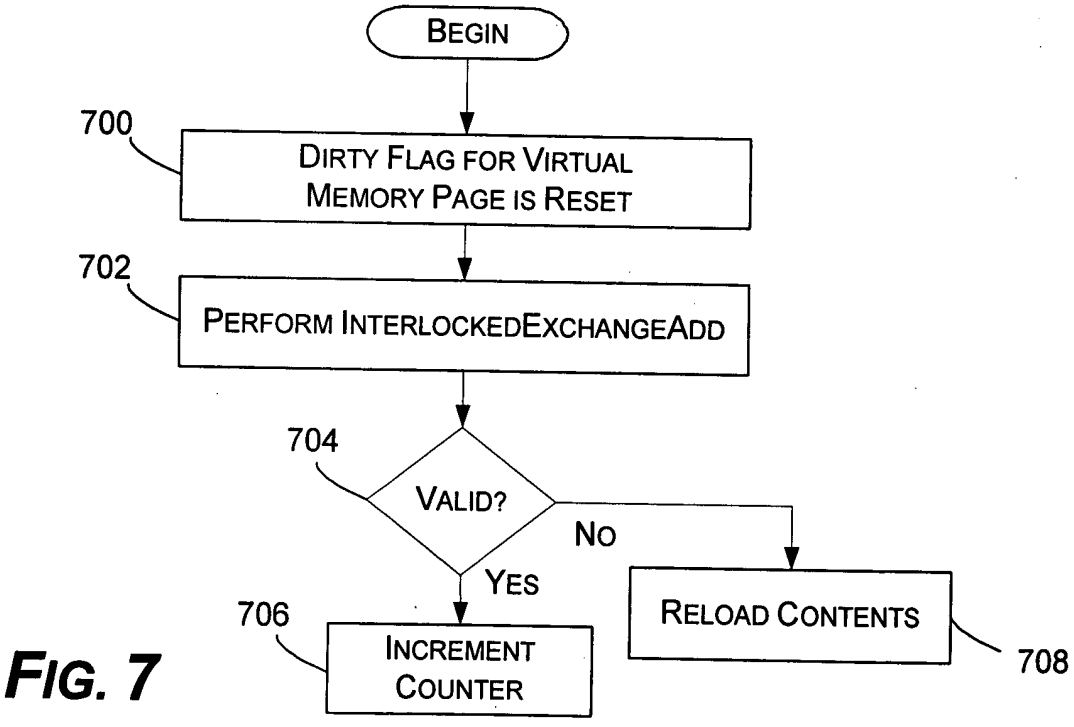
BEGIN
700
DIRTY FLAG FOR VIRTUAL MEMORY PAGE IS RESET
702
PERFORM INTERLOCKEDEXCHANGEADD
704
VALID?
NO
YES
706
INCREMENT COUNTER
RELOAD CONTENTS
708

FIG. 7

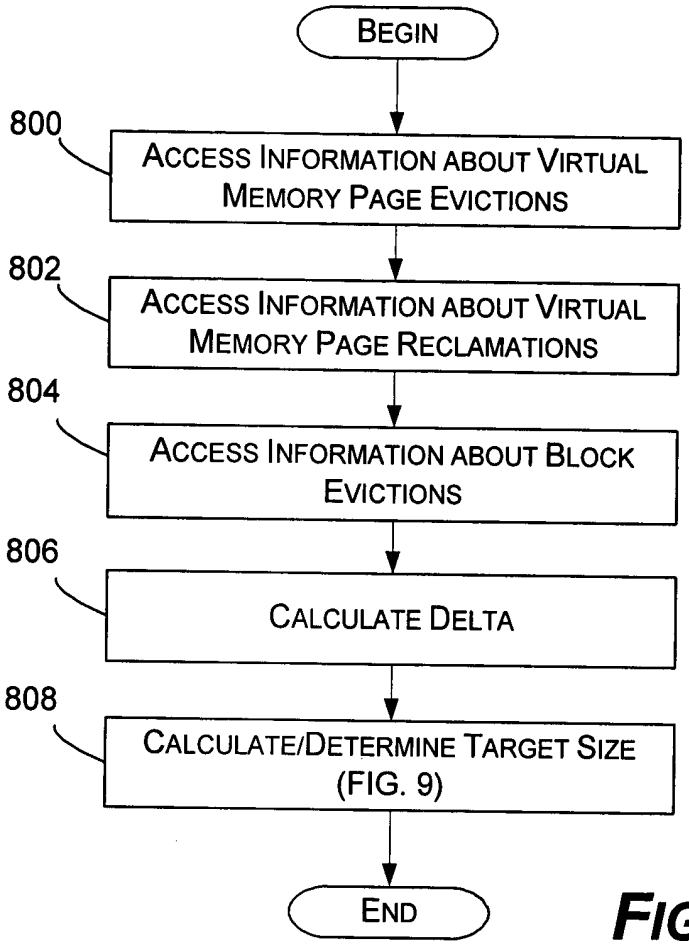
BEGIN
800
ACCESS INFORMATION ABOUT VIRTUAL MEMORY PAGE EVICTIONS
802
ACCESS INFORMATION ABOUT VIRTUAL MEMORY PAGE RECLAMATIONS
804
ACCESS INFORMATION ABOUT BLOCK EVICTIONS
806
CALCULATE DELTA
808
CALCULATE/DETERMINE TARGET SIZE (FIG. 9)
END

FIG. 8

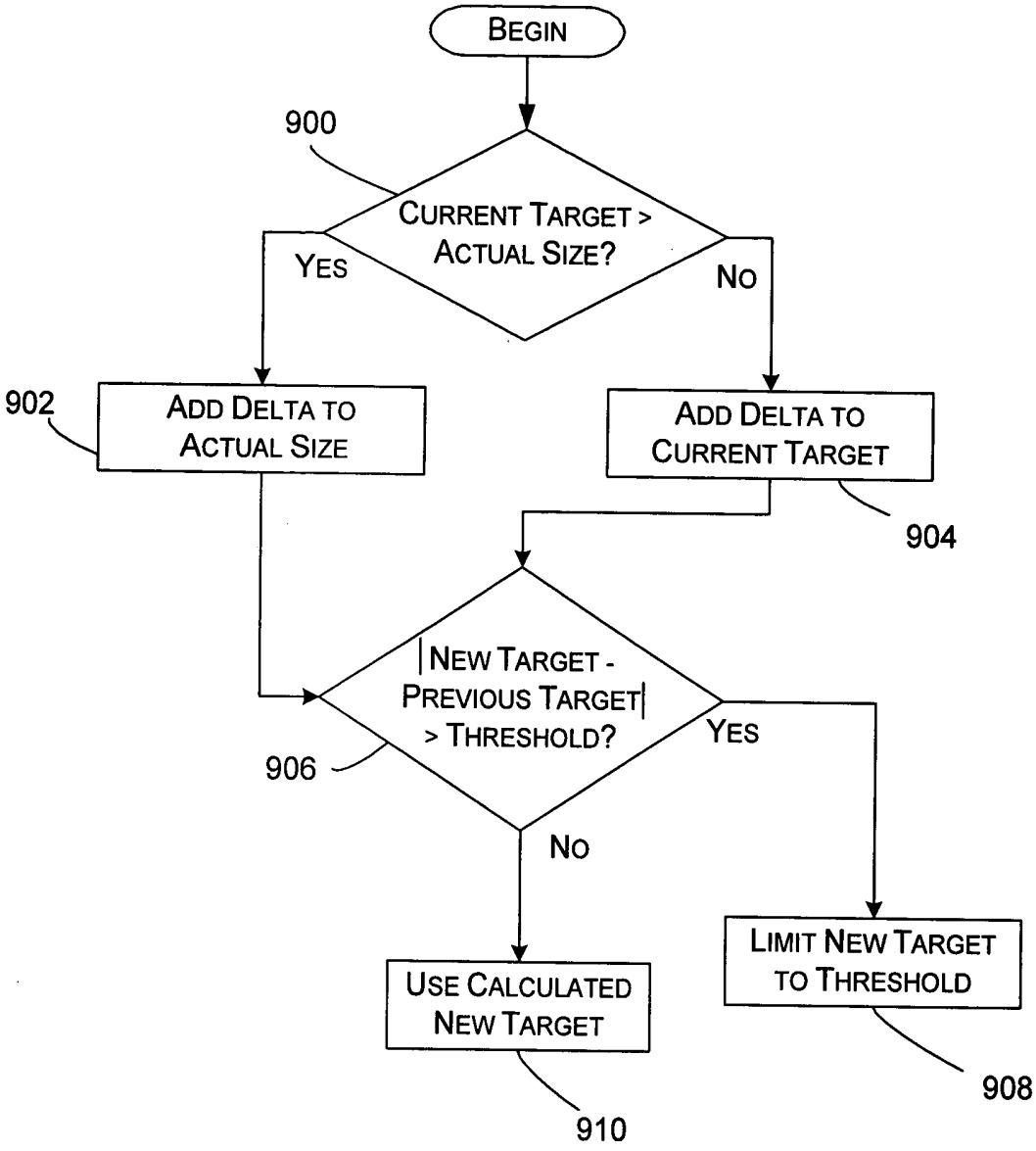
BEGIN
900
CURRENT TARGET > ACTUAL SIZE?
YES
NO
902
ADD DELTA TO ACTUAL SIZE
ADD DELTA TO CURRENT TARGET
904
| NEW TARGET - PREVIOUS TARGET | > THRESHOLD?
906
YES
NO
LIMIT NEW TARGET TO THRESHOLD
908
USE CALCULATED NEW TARGET
910

FIG. 9

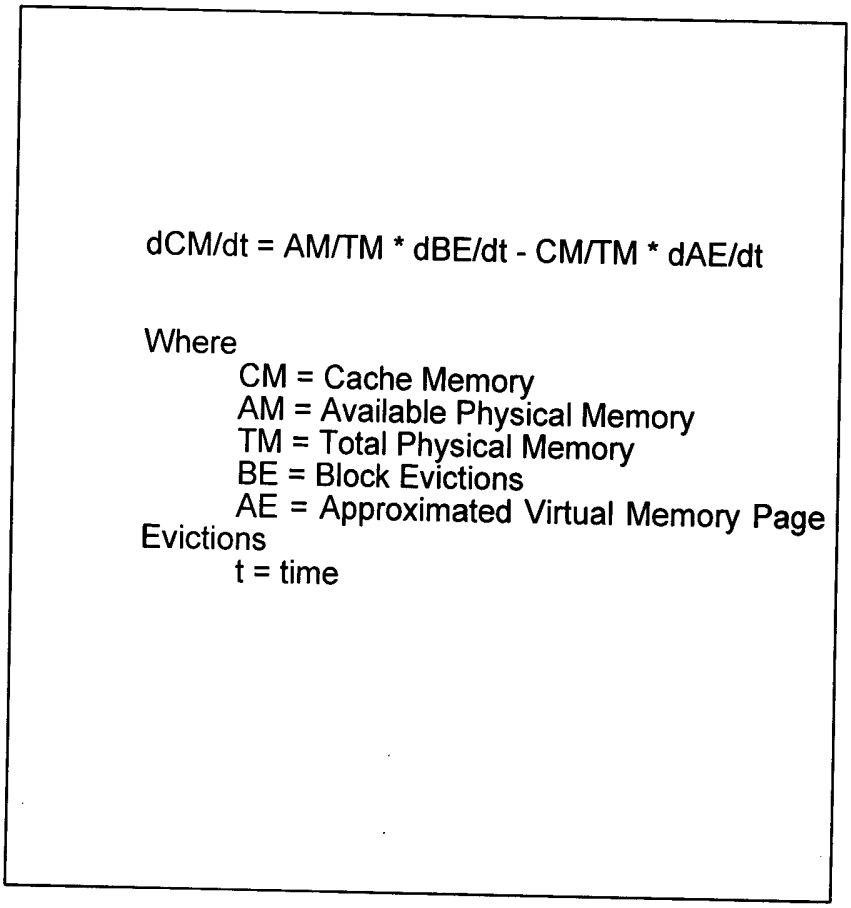

FIG. 10

PRIOR ART